(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau

(43) International Publication Date

11 November 2004 (11.11.2004)



PCT

CT (10) International Publication Number WO 2004/096817 A1

(51) International Patent Classification⁷: C07F 5/02, G01N 33/50, C08G 79/08, C07H 15/18, C08B 11/18, A61K 31/70, 31/715, 31/69

(21) International Application Number:

PCT/US2003/009380

- (22) International Filing Date: 28 March 2003 (28.03.2003)
- (25) Filing Language:

English

(26) Publication Language:

English

- (71) Applicant (for all designated States except US): TERUMO CORPORATION OF JAPAN [JP/JP]; 2-44-1 Hatagaya, Shibuya-ku, Tokyo 151-0072 (JP).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): KAWANISHI, Tetsuro [JP/US]; 655 Baker St. #H207, Costa Mesa, CA 92626 (US). ROMEY, Matthew, Albert [US/US]; 4605 East 1st Street, Long Beach, CA 90803 (US). HOLODY, Mark, Z. [US/US]; 13 Abeto St., Irvine, CA 92620 (US). ZHU, Peter, C. [US/US]; 6 Cresthaven, Irvine, CA 92604 (US). SHINKAI, Seiji [JP/JP]; 2-13-17 Mitoma, Higashi-ku, Fukuoka, Fukuoka Fukuoka (JP).
- (74) Agent: O'SHAUGHNESSY, Brian, P.; Burns, Doane, Swecker & Mathis, L.L.P., P.O. Box 1404, Alexandria, VA 22313-1404 (US).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD,

SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)
- of inventorship (Rule 4.17(iv)) for US only

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: SOLID-PHASE SACCHARIDE SENSING COMPOUNDS

(57) Abstract: The present invention provides solid-phase saccharide dyes. The dyes are bisboronic acids covalently bonded to a solid substrate. The dyes selectively conjugate with saccharides, particularly glucose, and register a signal. The signal is proportional to the quantity of saccharide. Thus, the dyes of the present invention are useful for measuring and monitoring saccharide levels, particularly in biological fluids such as blood.



4/096817 A1